DOCUMENT RESUME

ED 319 336 HE 023 529

AUTHOR	Theall, Michael
TITLE	Development of Materials for Use in a Comprehensive Teaching Improvement System. Final Report.
INSTITUTION	Northeastern Univ., Boston, MA. Office of Instructional Development and Evaluation.
SPONS AGENCY	Fund for the Improvement of Postsecondary Education (ED), Washington, DC.
PUB DATE	88
GRANT	G008541167
NOTE	71p.
PUB TYPE	Reports - Evaluative/Feasibility (142) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Audiovisual Aids; Computer Software; *Computer Uses in Education; *Course Evaluation; Faculty Development; Higher Education; Instructional Effectiveness; Instructional Materials; Material Development; State Universities; *Teacher Evaluation; *Teaching Skills
IDENTIFIERS	Northeastern University MA; State University of New York Buffalo

ABSTRACT

The project expanded on an already developed process for teacher-course evaluation at the higher education level. The process uses student ratings collected with an instrument which focuses on teacher behaviors and activities, overall assessments, and student and course information. Teaching improvement materials were developed as was a computer-based mechanism which provides statistical results, generates narrative reports that interpret the statistics, and matches areas of weak performance with the specific references and resources at hand. Products developed by the project included articles, books, reports, audio-visual items, and computer software (e.g., the "Tencore" authoring system and "Ventura" desktop publishing software). The system has been implemented at Northeastern University (Massachusetts) where it has been favorably received and where it efficiently handles about 1,500 course evaluations per academic quarter using 4 full-time staff. It has also been field tested at the State University of New York (SUNY) at Buffalo. Seven appendixes include: system description; lists of professional meetings and expert consultants; the course evaluation questionnaire; the summary report of project implementation at SUNY Buffalo; and a resource bibliography of 38 citations. (DB)

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ED319336

FINAL REPORT

FIPSE GRANT

G008541167

HE 023 529

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Institution:

Northeastern University
Office of Instructional Development and Evaluation
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360 Huntington Ave.
Boston, MA, 02115

Grant #: G008541167

Starting date:	September 1, 1985
Ending date:	August 30, 1988
Number of Months:	36

Project Director:

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Fund Program Officer:

Thomas Carroll

Grant award:

Year 1 $67,625.00
Year 2 $82,523.00
Year 3 $82,409.00

Total $232,557.00

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ABSTRACT AND PRODUCT SUMMARY

SUMMARY

The purpose of this grant was to expand upon an already-developed process for teacher-course evaluation. The process uses student ratings collected with an instrument which focuses on teacher behaviors and activities, overall assessments, and student and course information. The grant supported the development/acquisition of teaching improvement materials (to be used alone or in conjunction with the evaluation) and a computer-based mechanism which provides statistical results, generates narrative reports interpreting the statistics, and matches areas of weak performance with the specific references and resources at hand. The system is PC-based and can be adapted to the needs and unique requirements of any institution

Project Director:

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PROJECT PRODUCTS:

- "Effective Use of Time in the College Classroom" a 26-minute videotape with accompanying guide/workbook.
- "Writing a Syllabus", a monograph/self-instructional unit.
- "Selecting Texts and Readings", a monograph/self-instructional unit.
- "Motivating Students", a monograph/self-instructional unit.
- "Handbook for Teachers" .. A basic resource on college teaching in 'template' form (on PC disk in 'Ventura" desktop publishing format) ready to be adapted with information provided by any institution and used in a teaching improvement program.
- A partially annotated bibliography of over 1000 teaching-learning resources (available on PC disk or in print).
- A bibliography of over 1000 items on evaluation, student ratings, and associated topics (available on PC disk or in print).
- The Teacher-Course Evaluation Project (TCEP) questionnaire .. a diagnostic instrument which can provide data usable for teaching improvement, student course selection, administrative decision making, institutional research, or program evaluation.
- Evaluation system software and utilities which can be used for:
    - evaluations, surveys, or other kinds of data collection;
    - generating reports in many formats ranging from student catalogs of evaluation results to department/college comparisons of courses, individuals, programs, etc.;
    - standard statistical analysis of student ratings providing distributions, means, deviations, and ranges of results
    - special analyses for teaching improvement, institutional research, evaluation/teaching research etc.;
    - database management;
    - production of data files for use with SPSS-X statistical packages
    - office procedures such as keeping logs of evaluations, producing mailing lists and lables, etc.
- Research, presentations at professional meetings, materials

EXECUTIVE SUMMARY

PROJECT TITLE: Development of materials for use in a comprehensive teaching improvement system

GRANTEE: The Office of Instructional Development and Evaluation
417 Dodge Library Northeastern University
360 Huntington Ave. Boston, MA, 02115

PROJECT DIR.: Michael Theall, PhD
617-437-4897

A. PROJECT OVERVIEW

This project continued a Northeastern University effort to develop a valid, reliable, accurate, and efficient system for evaluating and improving teaching. The system has three basic parts: 1) procedures, and resources for collecting, managing, analyzing, and reporting data; 2) strategies and resources for teaching improvement; and 3) special software which models the teaching consultation process to interpret statistical analyses and to provide narrative as well as numeric information which can more clearly identify areas of weakness, suggest generally successful teaching techniques or strategies, and match specific resources to the instructor's needs. Given that the system can provide a 'baseline' teaching improvement service to many faculty, then the time of professional evaluation/development staff can be more directed to high impact projects such as training teaching assistants or working with departments; to more focused activities such as assistance to faculty with special needs; to institutional research; or to further development projects.

The word "system" is important because it denotes a comprehensive and interrelated set of resources, procedures, and products. Just as a "computer system" involves more than machines, the "evaluation system" planned for Northeastern involves more than a questionnaire and machine readable answer sheets. The FIPSE project was focused on the development of the resources which would make up the development and teaching improvement parts of the "system".

B. PURPOSE

Although the direct focus of the system is the evaluation and improvement of teaching, it can be used for other purposes in order to serve many clients.

It serves faculty through its direct teaching improvement functions, its ability to provide data appropriate for inclusion in promotion / tenure / merit dossiers, and its ability to identify

excellent teachers for awards, master teacher programs, and similar faculty development activities.

It serves students by providing an efficient means of conducting evaluations without having to rely on assistance from student organizations and also, with its ability to produce publishable reports of course evaluation results for student use in course selection.

It serves academic administrators through its ability to produce comparative reports of individual results using the most appropriate databases (thus providing valid data for promotion, tenure, and merit decisions); through its ability to produce reports of overall department and/or college performance; and through its ability to produce reports based on subgroups of data (such as ratings only from graduate students; ratings only from students majoring in a given field; ratings only of teaching assistants).

It serves the institution through its ability to collect, analyze, and report data for institutional research, program evaluation, classroom research, or curriculum decision making.

Finally, the system can be used as a pure research tool to gather information for studies on teaching, learning, evaluation, and many other topics.

C. BACKGROUND

More than two decades of research have established that students are valid and reliable raters of the instruction they receive. At Northeastern, the Teacher-Course Evaluation Project (TCEP) had successfully developed and tested an evaluation instrument and procedures for data collection, analysis, and reporting. The process was accurate and cost efficient. The questionnaire had been extensively analyzed and was found to be valid. Analysis of evaluation results showed Northeastern students to be reliable raters whose opinions were not significantly affected by demographic variables (e.g., sex, class), by performance related variables (e.g., grade-point-average), by contextual variables (e.g., class size), or by other variables discussed in the evaluation literature. But support was needed to develop the rest of the system. The FIPSE proposal was written to seek that support.

D. PROJECT DESCRIPTION

This project followed a systematic process of development in order to assemble or produce a set of resources which could supplement the existing process for evaluation to create a comprehensive system for evaluating and improving teaching.. Beginning with literature reviews and needs analyses, it went on to the design and production of products. Expert review and field testing followed, with revision and dissemination as the final steps. Most grant products reached the stage of review and/or field testing with information about the system concept and one product being disseminated to some extent

E. PROJECT RESULTS

During the course of the project, an extensive collection of materials was obtained/developed. These included articles, books, reports, audio-visual items, computer software for development and teaching improvement (e.g., "Ventura" desktop publishing software, the "Tencore" lesson authoring system, and the "PAR/AR" test development/scoring/item banking software package). Equally important was the development of special system software which al lowed the power and flexibility required to serve the various functions listed above. Although the existing evaluation had been initiated on a large computer (Northeastern's VAX 11/780 first, then the VAX 8650), efficiency and confidentiality demanded a change to a computing environment which was not used by others. The Digital Corporation provided a MICRO-VAX II for this purpose. That machine was used for almost the entire grant period. An im portant grant-supported improvement was the development of software for the personal computing environment. An IBM-PC-based version of the evaluation software has been in service and successfully field tested at the State University of New York at Buffalo (SUNYB) since Fall, 1987. The PC version will be implemented at Northeastern in the coming quarter.

As the development process progressed, faculty at Northeastern and SUNYB were first provided with diagnostic evaluation reports, then, at Northeastern, the special report capabilities of the system were used to generate reports comparing individual performance against selected norms (e.g., a person teaching a graduate course of 20 students compared only to other faculty in the same college who were teaching graduate courses of the same size). This was an important additional service because for the first time, faculty and administrators had access to data appropriate for use in merit/tenure/promotion decisions.

Another example of a product which has already been disseminated is a generic handbook for teachers. Based on the Northeastern University "Handbook for Teachers", the generic handbook can be adapted through desktop publishing to incorporate information specific to any institution while retaining all its general information about teaching and related issues. SUNYB and Indiana University already have their own handbooks while the University of Massachusetts has commissioned its own, and several other institutions have expressed interest in obtaining their own, custom versions.

Finally, several presentations have been made at professional meetings and the grant was the basis of an application to the Sears Roebuck Foundation for support to initiate an evaluation and teaching improvement service for teaching assistants and new faculty at Northeastern.

F. SUMMARY and CONCLUSIONS

Although it is difficult to quantify the outcomes of these beginning efforts, all reports from participants or reviewers have been favorable. The Northeastern system continues to efficiently handle large numbers of evaluations (almost 1500 course evaluations in the past quarter). This task was completed with the equivalent of only four full-time staff. At SUNYB, the same degrees of satisfaction and efficiency have been achieved.

BODY

A. PROJECT OVERVIEW

A "System" for Evaluating and Improving Teaching

This project continued a Northeastern University effort to develop a valid, reliable, accurate, and efficient system for evaluating and improving teaching. The system has three basic parts: 1) procedures, and resources for collecting, managing, analyzing, and reporting data; 2) strategies and resources for teaching improvement; and 3) special software which models the teaching consultation process to interpret statistical analyses and to provide narrative as well as numeric information which can more clearly identify areas of weakness, suggest generally successful teaching techniques or strategies, and match specific resources to the instructor's needs. Given that the system can provide a 'baseline' teaching improvement service to many faculty, then the time of professional evaluation/development staff can be more directed to high impact projects such as training teaching assistants or working with departments; to more focused activities such as assistance to faculty with special needs; to institutional research; or to further development projects.

The word "system" is important because it denotes a comprehensive and interrelated set of resources, procedures, and products. Just as a "computer system" involves more than machines, the "evaluation system" planned for Northeastern involves more than a questionnaire and machine readable answer sheets. The FIPSE project was focused on the development of the resources which would make up the development and teaching improvement parts of the "system".

Clients Served by the System

Although the direct focus of the system is the evaluation and improvement of teaching, it can be used for other purposes in order to serve many clients.

It serves faculty through its direct teaching improvement functions, its ability to provide data appropriate for inclusion in promotion / tenure / merit dossiers, and its ability to identify excellent teachers for awards, master teacher programs, and similar faculty development activities.

It serves students by providing an efficient means of conducting evaluations without having to rely on assistance from student organizations and also, with its ability to produce publishable reports of course evaluation results for student use in course selection.

It serves academic administrators through its ability to produce comparative reports of individual results using the most appropriate databases (thus providing valid data

for promotion, tenure, and merit decisions); through its ability to produce reports of overall department and/or college performance; and through its ability to produce reports based on subgroups of data (such as ratings only from graduate students; ratings only from students majoring in a given field; ratings only of teaching assistants).

It serves the institution through its ability to collect, analyze, and report data for institutional research, program evaluation, classroom research, or curriculum decision making.

Finally, the system can be used as a pure research tool to gather information for studies on teaching, learning, evaluation, and many other topics.

Beginnings

When the project began, the first part of the system was essentially complete. An evaluation instrument and procedures for data collection, analysis, and reporting had already been put in place and had been tested in several hundred courses. The process was accurate and cost efficient. The questionnaire had been extensively analyzed and was found to be valid. Analysis of evaluation results showed Northeastern students to be reliable raters whose opinions were not significantly affected by demographic variables (e.g., sex, class), by performance related variables (e.g., grade-point-average), by contextual variables (e.g., class size), or by other variables discussed in the evaluation literature.

Progress and Products

During the course of the project, an extensive collection of materials was obtained/developed. These included articles, books, reports, audio-visual items, computer software for development and teaching improvement (e.g., "Ventura Publisher" desktop publishing software, the "Tencore" lesson authoring system, and the "PAR/AR" test development/scoring/item banking software package). Equally important was the development of special system software which allowed the power and flexibility required to serve the various functions listed above. Although the existing evaluation had been initiated on a large computer (Northeastern's VAX 11/780 first, then the VAX 8650), efficiency and confidentiality demanded a change to a computing environment which was not used by others. The Digital Corporation provided a MICRO-VAX II for this purpose. That machine was used for almost the entire grant period. An important grant-supported improvement was the development of software for the personal computing environment. An

IBM-PC-based version of the evaluation software has been in service and successfully field tested at the State University of New York at Buffalo (SUNYB) since Fall, 1987. The PC version will be installed at Northeastern in the coming quarter.

As the development process progressed, faculty at Northeastern and SUNYB were first provided with diagnostic evaluation reports, then, at Northeastern, the special report capabilities of the system were used to generate reports comparing individual performance against selected norms (e.g., a person teaching a graduate course of 20 students compared only to other faculty in the same college who were teaching graduate courses of the same size). This was an important additional service because for the first time, faculty and administrators had access to data appropriate for use in merit/tenure/promotion decisions.

Another example of a product which has already been disseminated is a generic handbook for teachers. Based on the Northeastern University "Handbook for Teachers", the generic handbook can be adapted through desktop publishing to incorporate information specific to any institution while retaining all its general information about teaching and related issues. The development of the handbook "template" has already allowed us to serve faculty and SUNYB and Indiana University who have their own handbooks. A similar handbook has been commissioned by the University of Massachusetts and several other institutions have expressed interest in obtaining their own handbooks.

The project has provided an additional benefit: the rationale for a proposal for additional funding. This proposal (to the Sears Roebuck Foundation) is presently under consideration and seeks support to establish and staff a center whose specific function will be to use the system to assist teaching assistants and new faculty.

Finally, project staff have presented at several professional meetings and some ongoing, grant-supported research will serve as the focus of a major, sponsored symposium to be presented at the annual meeting of the American Educational Research Association in March, 1989.

Although it is difficult to quantify the outcomes of these beginning applications and dissemination efforts, all reports from participants or reviewers have been favorable. The Northeastern system continues to efficiently handle large numbers of evaluations. For example, in the Fall, 1988 quarter, we distributed almost 1500 course evaluations and we will process and return results this month. This task was completed with the equivalent of only four full-time staff. At SUNYB, the same degrees of satisfaction and efficiency have been achieved.

B. PURPOSE

Research and Practice in Evaluating and Improving Teaching

In the past two decades, student ratings of instruction have been used more and more frequently as a measure of teaching performance, course quality, and general attitude and/or opinion. At the same time, many methods of providing teaching improvement services have been proposed, initiated, and then reduced or eliminated because of their cost. Literally thousands of articles and books have been written, and hundreds of presentations have been made on the topics of faculty evaluation, student ratings, teaching improvement, and the relationships between these topics. The results of this work can be simply summarized.

1. Appropriate methods and instruments for evaluation have been developed for evaluating teaching performance in most higher education settings.

2. Students are valid and reliable raters of the instruction they receive (given that the methods and instruments used are appropriate).

3. Although ratings of specific teacher behaviors may be influenced by context (e.g., freshmen might view an instructor's speed of presenting information differently than seniors), general ratings (e.g., overall ratings of course or instructor) are not consistently or significantly influenced by factors such as age, sex, or similar variables.

4. Evaluation for personnel decision making requires data collected from many sources over time. Promotion and tenure decisions should never be made on the basis of one kind of information from one source taken from one observation or one set of ratings.

5. Evaluation of teaching performance without associated resources for teaching improvement is punitive.

6. Properly conducted, diagnostic evaluation coupled with resources for teaching improvement can lead to better teaching.

Beyond Research and Practice

Evaluation is a political issue and faculty development and teaching improvement have been expensive services because the teaching consultation model they employed. Though effective, the process was time-intensive and required a substantial number of professional staff even in smaller institutions. Equally

important to the success of these programs was the perceived value of the services. Research notwithstanding, programs of evaluation and teaching improvement require the acceptance of faculty and administration if they are to succeed.

The problem facing Northeastern and other institutions of higher education was (and is) centered on the question "Can a valid program of evaluation and improvement be established?" The question really had two parts: first, in times when resources were scarce, could comprehensive teaching evaluation/improvement services be provided, and second, would it be possible to successfully implement a large-scale program for evaluating and improving teaching? The purpose of the FIPSE project was to develop resources which would be added to existing mechanisms to create the "system" described above. The development of these resources and capabilities affirmatively answered the first question. The second question proved much more difficult and, at least at Northeastern University, has not yet been answered. The issue of acceptance will be further discussed in the "Conclusions" section of this report.

C. BACKGROUND AND ORIGINS

Services of The Office of Instructional Development and Evaluation

At Northeastern University, support for teaching and learning have been centralized in a unit presently known as the Office of Instructional Development and Evaluation (OIDE). Its mission is to support teaching and learning through designing, developing, evaluating and improving instruction. OIDE has provided these services to individuals and departments as resources allowed. But Northeastern is a large university: the largest private institution in the country. There are over 1,100 full and part-time faculty in the day school and another 1,850 in evening programs. There are 60 departments and many additional programs offering instruction. Providing comprehensive service to all these clients is not practically possible. OIDE had provided evaluation and improvement services to the limit of its resources and had used nationally available course evaluation instruments such as 'TABS' from the University of Massachusetts and 'IDEA' from Kansas State University to collect information about teaching performance. These instruments were useful but three factors argued against their incorporation into a regular evaluation/improvement program: 1) the costs associated with external data processing or internal development of processing capability; 2) the fact that many faculty wanted to be compared to a Northeastern database rather than a national norm bank; and 3) the fact that we wanted to combine the best aspects of both instruments into the system.

The Teacher-Course Evaluation Project

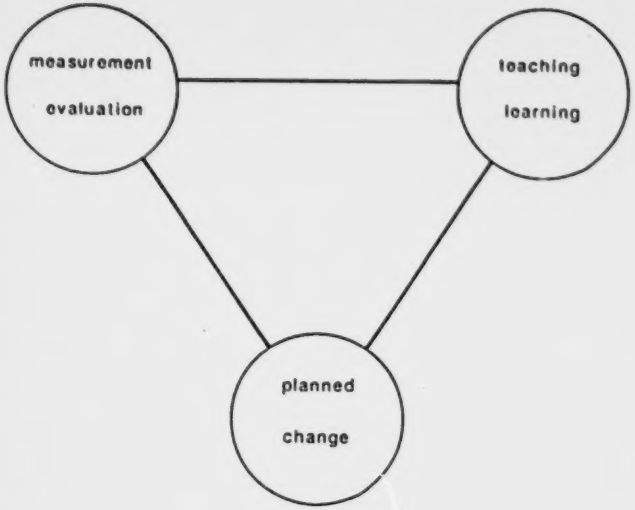
In 1984, OIDE began the Teacher-Course Evaluation Project (TCEP) in an effort to address the problem. A model of the evaluation/ improvement system was developed and is shown in Figure 1. Essentially, any evaluation and improvement model draws on research and theory from three general areas: measurement/ evaluation; teaching/learning; and communication/counseling/development (which we have labelled "planned change"). Each of these areas informs a general function of the system. Measurement/evaluation literature informs data collection, handling, and analysis. Teaching / learning literature provides the basis for pedagogy and for understanding students and the learning process. The literature of psychology, communications, organizational development, and other areas provide methods for translating reports of results into meaningful, useful information, and for motivating faculty to use and benefit from the available resources, and for introducing the system into the organization. Another important aspect of the model is that the research and practice efforts can be synergistic. Research and theory provide the basis for practice, but the use of the system itself can provide data for research which can add to the body(ies) of knowledge which inform the system.

A TCEP evaluation instrument was developed to assess teaching by focusing on actual teacher behaviors. Realizing that resulting data might be used for promotion and tenure decisions, some appropriate general questions were added and a means of providing comparative reports of results from these items was developed. Finally, student, course, and teacher demographic items were added to allow more specific analysis of results. The entire process was computer-based for efficiency and speed. This process was successfully field tested at Northeastern and the instrument was validated. It soon became clear that conducting, analyzing, and reporting the evaluations used all available resources and that development of the full "system" would require additional support. The original intent for the FIPSE grant was to develop the full system with the intent of installing and testing it at Northeastern. As the following sections of this report will show, this intent could not survive the institutional cutbacks and reorganization that followed.

The Evaluation Climate at Northeastern University

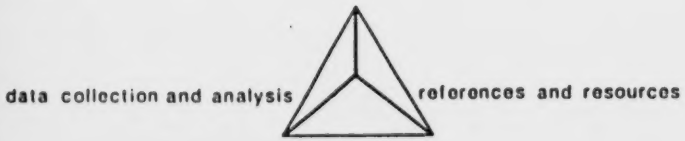
At the time of the FIPSE application, there was no regular or formal university procedure for course evaluation. OIDE had been working with a small committee representing students, faculty, and administration, to begin a regular evaluation service and it was hoped that this effort would lead to a generally accepted process based on the best literature and practice as well as the needs of the institution. The field tests and validation of the first TCEP questionnaire were being conducted and faculty were reporting strong satisfaction with the service and strong confidence in its reliability and confidentiality.

REALMS OF THEORY AND PRACTICE



7A

FUNCTIONS AND ACTIVITIES OF EVALUATION



EVALUATION AND IMPROVEMENT SYSTEM

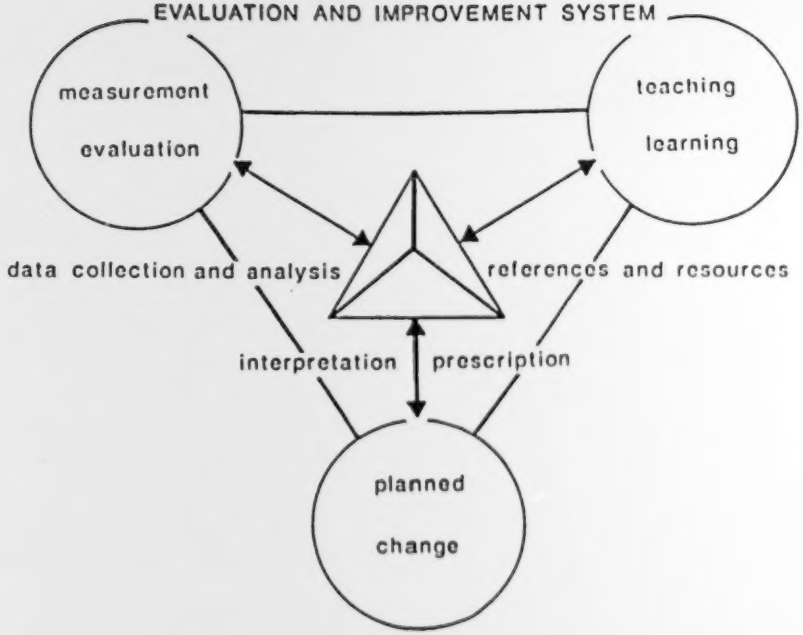


FIGURE 1.

A SYNERGISTIC RELATIONSHIP BETWEEN RESEARCH AND PRACTICE

Unfortunate Politics

Unfortunately, just at the time when the grant began, the evaluation issue became politicized and a two-year debate ensued in the Faculty Senate. As the debate proceeded, members of the Student Government Association became more insistent in their demands for regular evaluation of all courses. The end result of this activity was that the process of developing a comprehensive 'system' was pushed aside by the demand for a basic evaluation service which did not support teaching improvement and which used some of the OIDE resources intended for grant work. The impact of these events raises issues which are further discussed in the "Evaluation" and "Conclusions" sections of this report.

D. PROJECT DESCRIPTION

General Strategies for Development

This was essentially a design/development project intended to acquire resources or to produce them from 'scratch'. There were three major types of activity: 1) model/theory development for the system and particularly for the computer-based teaching improvement consultation process; 2) design/development of 'hands on' resources such as print or non-print materials which could be used to help faculty improve their instructional or course design skills; and 3) design/development of computer resources such as hardware configurations for various environments, software, special utilities for data management and administrative tasks, the interface between statistical results and the interpretations and/or suggestions presented in the narrative report, and documentation.

A systematic approach to development was employed. Project team members were individually responsible for developing specific products or carrying out certain kinds of activities, as well as for participating in team reviews of processes or products. Project tasks were assigned as follows:

The Project Development Team

- Project Director: The project director was responsible for project administration/coordination/management, product development, and internal review/editing. Thus, in addition to budget, scheduling, report

writing, coordinating all consultant activities, and other administrative functions, the director carried out product development tasks (e.g.: executive producer of the "Effective Use of Time in the College Classroom" videotape) and edited grant documents (e.g.: the monographs on teaching topics).

- Instructional Design and Systems Coordinator: The coordinator was responsible for monitoring the instructional design process and standardizing the design of the developed products (e.g.: using desktop publishing to format printed products for maximum readability, organization, appearance, and consistency). A vitally important role of the coordinator was the responsibility for designing application software and writing specifications used by a systems analyst/programmer hired as a long-term development consultant for the grant. The coordinator was lead instructional designer for the Northeastern University "Handbook for Teachers" (which was a Northeastern contribution to the grant) and, using desktop publishing, created the 'template' version of the handbook which can be adapted to the needs of any institution. Finally, the coordinator acted in a review/editing capacity.

- Instructional Designer: The instructional designer was responsible for developing the teaching topic monographs and for the initial development of the annotated database of teaching improvement resources in the collection assembled under the grant. The instructional designer worked with external consultants who were expert in the monograph topics and incorporated their reviews/suggestions into revised versions of the monographs. The designer participated in team reviews of products and in project planning sessions.

- Consultants: Expert consultants were used reviewing existing literature and/or materials in order to determine those areas in which the grant could have greatest impact. These consultants were also used as reivewers of developed materials. In the case of the "Effective Use of Time in the College Classroom" materials (videotape and workbook), the consultants actually developed the workbook, wrote the narrator's script for the videotape, and participated in those production and post-production activities carried out at their institution.

A special use of consultants was made in some research begun with grant support (and continuing to be supported by Northeastern at this time). In an effort to determine what kinds of system feedback would be most beneficial to faculty and administrators, a survey of evaluation knowledge, attitudes, and practice was developed for use at several institutions. Twenty-four of the most re spected researcher/writer/practitioners in the evaluation and teaching improvement fields were asked to respond to the survey and to provide their opinions on its depth, on its

correctness with respect to the literature, on its validity, on its usefulness for our purposes, and on the potential value of the research to the field. The feedback from these experts allowed the development of a more precise questionnaire with items validated by the concensus of the experts. Expert feedback also guided the analysis of results from the survey and established criteria for measuring respondent knowledge in subsequent surveys. Finally, a symposium on research and practice in faculty evaluation was successfully proposed for the annual meeting of the American Educational Research Association (AERA). In addition to having project staff report the research, the symposium will include presentations by five of these same experts on topics engendered by the research.

The most extensive consulting arrangement was with a systems analyst/ programmer who developed software based on the specifications of the team's systems coordinator. This arrangement reflects the team's view that development of computer based instruction (or instructionally related materials) is best accomplished by using experts in content, design, and computing. Although in this case, the content and design expertise were within the project team, a particularly high level of computing expertise was required to execute the design. The failure of many instructional computing efforts can be traced to the mistaken assumption that only a content expert or programmer or designer is needed for development. Without combined expertise (and it is almost never found in one person) the product will suffer.

When the grant began, OIDE's staff included two full-time instructional designers and one, temporary, clerical assistant. A third instructional design position was being advertised. Space was available to house the resources and services which would be provided to faculty. The grant was intended to allow the hiring of one additional instructional designer and to supplement and review locally developed items by using external consultants. Although the grant-supported instructional design position was filled three months into the grant period, the pressure of the situation and limited University resources forced the removal of the unfilled, permanent, instructional design position in favor of a full-time, permanent clerical position needed to conduct evaluations. This greatly affected OIDE's planned strategy for product development under the grant and put a great deal of stress on the original timetable for development and implementation of grant-supported products and services. Additionally, the space intended to house the resources and services was lost in an administrative reorganization, thus making a field test of the service at Northeastern a practical impossibility. Adjusting to these changes required extending timetables, using consultants more extensively, and locating an external field test site. These strategies were carried out over the grant period.

Use of Staff Time

During the grant period, staff were used as follows (average figures are shown):

- Project Director = approximately 40% time (contributed)
- Design/systems Coordiantor = approximately 65% time (contributed) with an additional one-fifth, after-hours time (grant-supported).
- Instructional Designer = 100% time (grant supported).
- Systems analyst/programmer = the equivalent of one-quarter time (grant supported).
- Development consultants for "Effective Use of Time" = approximately 120 hours (grant supported).
- Other consultants = very few grant hours per person

Steps in the Development Process

As previously noted, the project followed a systematic process for development. The steps in the process are briefly described in the following outline.

- Literature review: developing an understanding of the state of the art and the standard of practice in general areas relevant to the system model as well as the research and theory of evaluation, pedagogy, etc.; if necessary, conducting research to guide design and development activities.
- Needs analysis: determining context, resources, requirements, and the functions to be served by the system.
- Audience analysis: identifying system users and their levels of knowledge, experience, motivation, etc.
- Design: using the results of the above analyses; selecting content; determining strategies for presentation; incorporating operational, ficsal, or other limitations into planning; selecting appropriate media for delivering the resource; planning and scheduling events; determining evaluative strategies and options for revisions if needed.
- Development: executing the design for the product.

- Evaluation: reviewing and validating the design, concepts, and content of products or processes internally or by submitting materials to outside experts.

- Field Testing: using the product and/or process locally or at external sites and review of efficiency or effectiveness by users.

- Revision: altering products or processes on the basis of review or field testing.

- Dissemination: distributing information about grant-supported products, processes, or research; providing grant-supported materials to others on a broad scale.

E. PROJECT RESULTS

Because the project was delayed, and because practical and institutional limitations prevented the installation of a fully developed "system", it is difficult to assess the extent to which that system would succeed in an operational setting. However, several aspects of the project have been investigated and reported, and many parts of the system have been used. The following paragraphs report some of these results.

The Concept

The concept and theoretical basis for the system have been described at professional meetings and in personal communications with the expert consultants employed in the grant. (A copy of the system description used at these meetings is attached as Appendix 'A'.) Reactions have been unanimously favorable, the strongest being "This is the best new idea I've seen in five, no, in ten years!" and the weakest being "It's a good concept, but the real question is whether you can get faculty to accept it." The theoretical basis for the system and the TCEP questionnaire have also been reviewed by experts who concurred that the underlying scholarship was sound. (A list of professional meetings at which the system has been described is attached as Appendix 'B'. Also included in that Appendix are the names of the expert consultants involved in grant-supported development and/or research.)

The Teacher-Course Evaluation Project

The TCEP questionnaire has undergone extensive statistical analysis and has been found to be reliable. It assesses constructs and behaviors consistently reported in the literature as important facets of instruction. Further, a survey of faculty users of the TCEP system revealed high degrees of satisfaction with the service and strong confidence in its reliability and con fidentiality. Interim and final reports have been written for internal dissemination at Northeastern and a comprehensive technical report is being written and may be disseminated through ERIC or a similar source. Additionally, TCEP results have provided data for evaluation research and our intent is to report this research at professional meetings or in appropriate journals. (Samples of the TCEP student and instructor questionnaires are attached as Appendix 'C'.)

The Computing Environment

The TCEP system has been used to evaluate several thousand courses at Northeastern University and has operated in Digital Equipment Corporation's VAX/VMS environment on the VAX 11/780, VAX 8650 and the MICROVAX II. We are preparing to implement a microcomputer based system during this academic quarter. The equipment configuration will include an "AT" class machine, a laser printer, and an optical scanner to read answer sheets. Other equipment associated with delivering the service includes a photocopier and a burster/collater to separate continuous feed answer sheets after pre-printing. Various other pieces of computing hardware are used by OIDE staff and can be 'networked' to the 386 PC, but these are not required to operate the system. The field test site at SUNY Buffalo has used a PC system for two years, serving about three-hundred faculty. (A brief report from SUNY is attached as Appendix 'D'.) A complete desktop publishing system is available for production of well-designed, readable documents.

In both situations, the system has been cost-efficient, accurate, and fast. In fact, the only difficulties encountered in the evaluations at Northeastern were caused by failures or errors outside the TCEP system (e.g., the university's main computer was inoperative; answer sheets were incorrectly printed by computer services; faculty or student monitors did not administer evaluations correctly). A strength of the overall TCEP process is that these errors were discovered and corrected before any reports of results were distributed. The importance of confidentiality and accuracy in any system handling sensitive data can not be overemphasized. For the sake of faculty, as well as for the institution and the unit delivering the service, it is essential to develop means of cross-checking information and exercising quality control. The utilities built into the system software produce logs, reports, and various other documents for this purpose and these have served us well.

The system software and hardware package was designed to be powerful, flexible, and portable. That is, many parts of the system can work independently as well as within the system. The components are designed to allow them to be customized to the needs of any institution, and even the full system uses relatively inexpensive machinery. Two-year or community colleges could easily afford the evaluation and teaching improvement services provided by the system. In fact, the SUNY Buffalo service uses an IBM PC XT, a dot matrix printer, and an optical scanner for reading answer sheets. The total cost of such a system is well under $10,000.

The "Handbook for Teachers": a Unique and Popular Product

There has been much positive response to a product contributed to the grant by Northeastern. The "Handbook for Teachers" is a document provided to all teaching assistants and new faculty at Northeastern. It was developed by OIDE and it contains general information about teaching, evaluation, and related topics, as well as Northeastern-specific information about available re sources, about various local procedures, and about campus units providing academically related services. The document was published using the desktop publishing system purchased with grant funds and a generic version (a 'template') was produced. The template contains all the general information and has space for new, institution-specific information to be inserted. At this time, Indiana University and Suny Buffalo are using their own versions of the handbook. The University of Massachusetts at Amherst has commissioned its own version and several other institutions have expressed interest in doing the same. (A copy of the Northeastern 'Handbook' and a brief description of the "Template" are attached as Appendix 'E'.)

Computer-based Evaluation and Teaching Improvement Bibliographies

Two, extensive bibliographies have been prepared and these list all the resources available at OIDE. The first contains items on teaching improvement and important evaluation items with major works reviewed and annotated. The purpose of this listing is to provide faculty a usable resource of information about teaching. Further, because the list is computerized, it can be searched for all relevant titles or authors in a given topic. It is this list from which the computer-based consultation system will draw the references to be inserted into the interpretive evaluation reports produced by the system. The second lists all the evaluation items at OIDE but is more a professional bibliography because of its emphasis on research items. This list is also computerized and it, too can be searched for specific topics/authors or for more general research purposes. The combined bibliographies include over 2,000 works in print and other formats, all of which are available at OIDE's offices. These bibliographies will be made available to evaluation and teaching improvement practitioners and to institutions interested in developing similar sets of resources.

(Sample pages from the bibliographies on handbooks, lecturing, feedback/ questioning/testing/grading are attached as Appendix 'F'.)

Other Teaching Improvement Products

Three teaching improvement products are completed and awaiting final production and dissemination. The videotape and workbook entitled "Effective Use of Time in the College Classroom", and the two monographs/self-instructional units "Writing a Syllabus" and "Selecting Texts and Readings" will soon be prepared for distribution at Northeastern, SUNY Buffalo, and selected other institutions (those which participated in the evaluation research project). Another monograph, "Motivating Students" is at the review stage and will be completed as soon as possible. Finally, a special monograph on teaching sociology has been written and reviewed and a final version will soon be prepared for desktop publishing. (A copy of the videotape is included as Appendix 'G' but it should be noted that this is a "third generation" copy and thus its technical quality is less than the products which will be distributed when the materials are reproduced for dissemination.)

Professional Activities

Several professional activities have provided opportunities for disseminating information as well as for gathering valuable feedback from experts, practitioners, faculty, and administrators. Staff associated with the grant have already attended six conferences, delivering ten presentations on the system and related evaluation/ teaching improvement topics. (See Appendix 'B' for a list of meetings.)

An important aspect of the grant effort has been a research project begun in the third year of funding and presently being continued with Northeastern support. The research investigates faculty, administrator, and practitioner knowledge, attitudes, and practices with respect to the uses of student ratings of instruction. Our intent is to determine what kinds of information will be most useful and/or beneficial to include when reports of student ratings are prepared.

For example, we have already determined that it is important to inform faculty about the quality of the ratings sample. We have devised a series of statements which address specific levels of sample quality based on class size and the percentage of those responding to those enrolled. The analysis performed by the 'system' will automatically calculate the enrolled and responded numbers and their ratio, and then select and print the appropriate message. Thus, if in a class of 36 students only 13 respond to the evaluation, a "WARNING" would appear in the report of results. The warning would note that because fewer that 50% of the class responded, the data could not be considered reliable, should be carefully reviewed (with qualified

assistance) prior to being used as a basis for altering one's teaching, and should "NEVER" be presented for use in promotion, tenure, or merit decisions. If the sample is adequate and the data can be used without restriction, then a message with this information would appear on the report.

In brief, our research is aimed at identifying as many of these instances of critical results as possible, particularly if the research also reveals that faculty and administrators might misinterpret or misuse these results. Given this knowledge, we can incorporate appropriate safeguards in to the reports produced by the system.

At the annual meeting of the American Educational Research Association (San Francisco: March, 23-30, 1989), the results of our research will be the focus of a symposium sponsored by the AERA Faculty Development and Evaluation Special Interest Group (SIG). The symposium will include our research report and papers / discussion by five of the experts used as consultants in the grant. This national exposure will allow wide dissemination of information about the grant and its products and will, we hope, generate further interest in the acquisition and use of these products by other institutions.

F. EVALUATION

In evaluating the project, there are two possible questions to be addressed. The first is "Did we accomplish what we proposed, and if so, how successfully?" If the answer to question #1 is "NO", then the alternative question is "What was accomplished and what was its importance, its value, and its degree of success with respect to our revised goals?"

The original intent of the FIPSE proposal was to evaluate the individual products and processes which were developed, as well as to evaluate the system as whole. Our reasoning was that the individual components (such as the teaching improvement monographs) should be usable in their own right as well as being useful parts of the system. In effect, the formative aspects of the evaluation of system components have been completed through the use of expert consultants, the delivery of TCEP evaluation services, and the field test of the limited system at the SUNY Buffalo campus.

However, because research and development necessary to complete the interface between ratings data and comprehensive reports were delayed, evaluation of that interface has been limited to the consultation and review of experts as described in previous sections of this report. Further, as the interface was incomplete, the full

system could not be implemented and thus, could not be evaluated except as a concept. Finally, it was our hope that a small-scale service using the system could be initiated at Northeastern, thus providing data on the perceived value and usefulness of the system. Surveys of faculty and/or administrative users could have provided valuable formative feedback for revisions of the system prior to its use at other institutions.

The results of all our formative evaluations have been positive. From the conceptualization of the system through the teaching improvement products to the capabilities built into the software, each component has either received positive review or performed well and required only minor revisions. What remains, of course, is to install the system and evaluate its performance, acceptance, and impact in the summative sense.

G. SUMMARY AND CONCLUSIONS

A Most Difficult Issue

We have concluded that if the products and processes developed under the grant are to be useful and valuable, they must exist in a supportive environment. The corrolary is that such systems can neither exist nor be introduced into negative environments. Further, a system for evaluating and improving teaching can not be introduced into even a neutral environment without very careful planning. Without the approval and support of faculty and administration, the best services will be unused, or worse, misused.

What constitutes a supportive environment? This is a difficult question to answer because different people and different institutions have different definitions of support. Yet one of the most critical aspects of this issue is a clear institutional definition of mission, direction, expectations, and rewards. If effective teaching is a criterion for advancement, then the institution must provide not only a proper system for evaluating teaching and rewarding effective teaching, but also a means of assisting those who fall below criterion. In the absence of such assistance, any system for evaluating teaching is simply a weapon to be used against those who do not immediately and consistently reach the criterion. The results are hostility, mistrust, unfairness, and the degredation of the system's potential for positive impact.

It is important to remember that the evaluation of faculty performance requires much more than the evaluation of teaching. Figure 2 views evaluation as a process

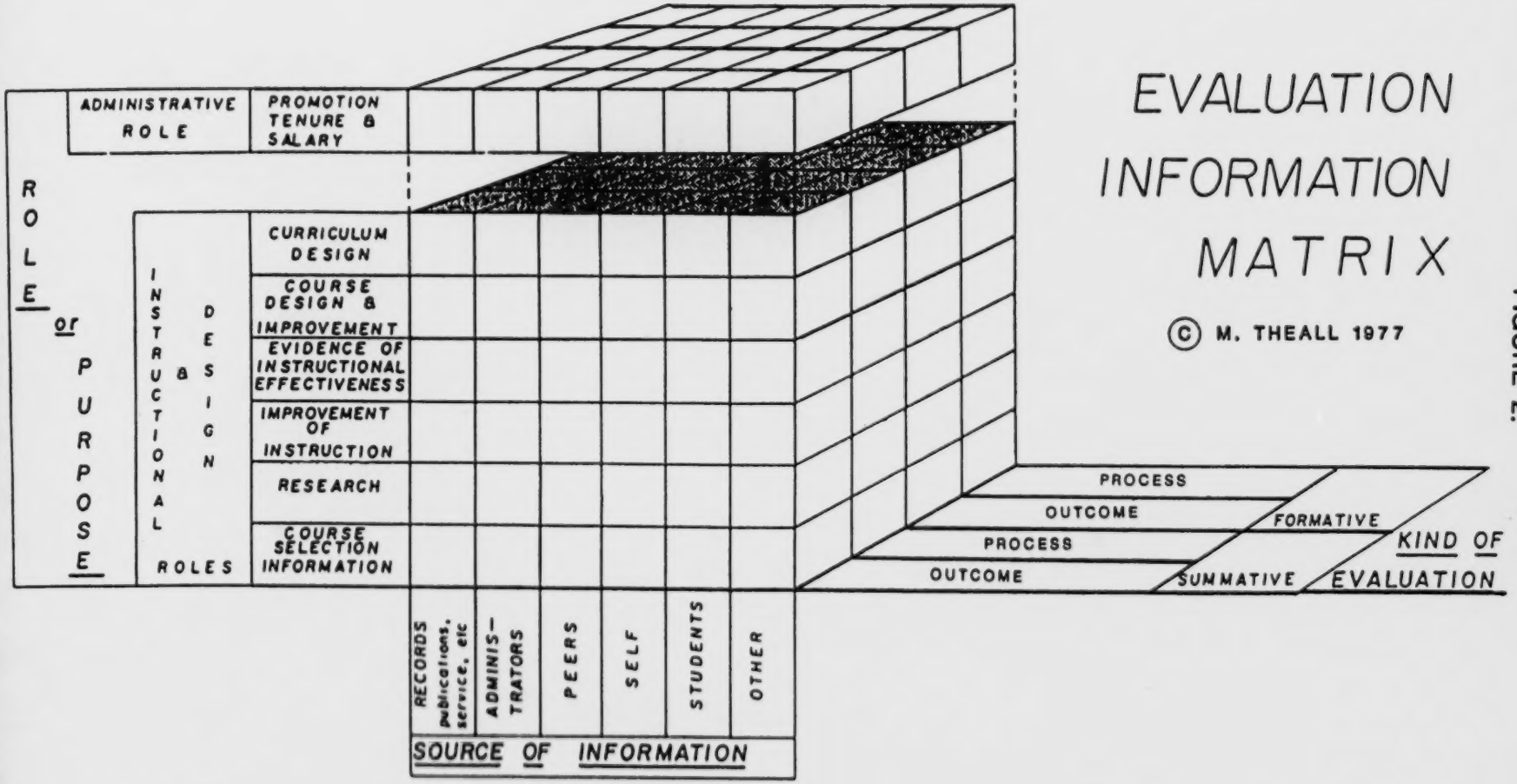

EVALUATION INFORMATION MATRIX
© M. THEALL 1977
ROLE or PURPOSE
ADMINISTRATIVE ROLE
PROMOTION TENURE & SALARY
INSTRUCTIONAL & DESIGN ROLES
CURRICULUM DESIGN
COURSE DESIGN & IMPROVEMENT
EVIDENCE OF INSTRUCTIONAL EFFECTIVENESS
IMPROVEMENT OF INSTRUCTION
RESEARCH
COURSE SELECTION INFORMATION
RECORDS publications, service, etc
ADMINIS-TRATORS
PEERS
SELF
STUDENTS
OTHER
SOURCE OF INFORMATION
PROCESS
OUTCOME
PROCESS
OUTCOME
FORMATIVE
SUMMATIVE
KIND OF EVALUATION

FIGURE 2.

17A

of gathering information for specific purposes (its various "roles"). Note that in the educational setting, evaluation for promotion, tenure, or merit sits at the top of the list of roles. The reason for this is that proper evaluation for merit, promotion, and tenure requires more informa tion of more kinds from more sources than does evaluation done for other purposes. Thus a second, critical aspect of a supportive environment for the system is that student ratings results can never be the sole source of information if the role of evaluation is administrative. A complete, public, and approved process must be in place.

An experience at Northeastern demonstrates the importance of having the correct environment for evaluation. As noted earlier, just as the TCEP system was being readied for broad use, a long and difficult debate began in the Faculty Senate. That debate was most certainly influenced by strident demands from the leadership of the Student Government Association that campus-wide evaluation be put in place immediately. The President announced, prior to the end of the debate, that the process desired by the students would be supported and that its results might eventually be used for administrative/personnel decision making. The student newspaper reported the situation as battle among students, faculty, and administration. Even if all other conditions for the acceptance of a properly developed campus-wide evaluation system had been present, these events so polarized the situation that its end result was an incomplete system without real provision for teaching improvement or the kind of reports of results which could be appropriately used in personnel decision making. The comments of faculty clearly showed their suspicions that evaluations would be used punitively and that positive evaluation results would be meaningless. When such feelings exist, even the best-intentioned system will be resisted.

The FIPSE grant was not intended to support the initiation and implementation of a large-scale system for evaluating and improving teaching at Northeastern or other institutions. We assumed that once it was developed and tested, the system would be valued because its merits were apparent: especially in an environment in which scholarship, research, and sensitivity to faculty needs were paramount. Although this assumption about acceptance was perhaps naive, we feel that the direct goal of the grant has been achieved. We have developed "materials for use in a comprehensive teaching improvement system". Our next task is to make that system work in a real higher education context.

APPENDICES

APPENDIX A

THE-TCEP-SYSTEM

The Teacher-Course Evaluation Project

The Teacher-Course Evaluation Project (TCEP) represents an on-going project of the Office of Instructional Development and Evaluation at Northeastern University to create a system which can match student ratings of instruction with teaching improvement resources. To accomplish this, the TCEP evaluation system uses the TCEP Questionnaires and TCEP reports of student rating results to provide instructors with information about self-instructional materials, resources, and services available to instructors to improve or extend their teaching and course design skills.

TCEP teaching improvement materials allow instructors to target specific areas of their teaching and course design skills for development. The TCEP system can be used with or without the assistance of a teaching improvement specialist.

In 1985, the Office of Instructional Development and Evaluation received a major grant from the Fund to Improve Post-Secondary Education (F.I.P.S.E.) designed to further the goals of the TCEP effort. Questionnaires, evaluation software, self-instructional materials on teaching topics, and bibliographies of resource materials are being developed under the grant. At the present time, beta test versions of TCEP components are being made available on request on a limited basis.

Major components of the TCEP System include:

TCEP QUESTIONNAIRES: sets of teacher-course evaluation instruments

- **TCEP Questionnaire, the primary student rating form (40 items)**
- **TCEP Instructor's Questionnaire**, the parallel form for instructors
- **TCEP Item bank**, a collection of additional items for in depth assessment of specific aspects or types of instruction

TCEP REPORTS: a collection of reports of results (TCEP system software required) including:

- **TCEP Instructor's Report:** Comprehensive descriptive statistics for a course-sections results (mean, standard deviation, confidence intervals frequencies, and instructor's self-ratings)
- **TCEP Instructor's Comparison Reports:** Comparison statistics showing one course-section results compared to a selected group of courses. (means, deviations, T-scores, and Percentile Group)
- **TCEP Administrative Report:** Comparison statistics showing groups of course-section results sorted by department and instructor, compared to a selected group of courses. (means, deviations, T-scores, and Percentile Group)
- **TCEP Student Report:** frequency statistics only of 5 to 10 TCEP items of direct interest to students for the purpose of course selection. This form provides a camera-ready original for the publication of student ratings catalogs.
- **TCEP Interpretive Report:** Comprehensive statistics plus individualized comments and listings of available teaching improvement resources.

TCEP GUIDES: pamphlets designed to assist in the interpretation of TCEP reports.

- **"Instructor's Guide to Interpreting TCEP Results"**
- **"Administrator's Guide to Interpreting TCEP Results"**

TCEP Teaching Improvement Resource Materials:

- **"Effective Use of Class Time"** , a video (VHS) with workbook for instructors and workshop facilitators
- **"Writing, Designing, and Using the Syllabus"**, a print module, includes sample syllabuses
- **"Selecting Text Materials"**, a print module
- **Resource Bibliography Collection**, annotated bibliographies on teaching improvement and faculty development topics
- **Handbook for Teaching Assistants**, 60 pages
- **TCEP System Software**
  - **VAX-VMS** based admistrative software, especially suited large scale evaluation operations
  - **PC-DOS** based administrative software and teaching improvement consultation system, especially suited to smaller organizations (e.g. community colleges, departments, resource centers, etc.)

APPENDIX B

Professional meetings attended by project staff:

First meeting of the National Center for Research to Improve Postsecondary Teaching and Learning. Ann Arbor, Michigan: November 1985. Presentation by Project Director: "Using student ratings of instruction for research into teaching and learning."

Second National Conference on Instructional Improvement and Evaluation Techniques for Colleges and Universities. Tuscon, Arizona: February, 1987. Presentation by Project Director: "A cost-efficient system for providing evaluation and teaching improvement services."

Second National Conference on Faculty Evaluation and Development. Orlando, Florida: April, 1987. Presentations by Project Director, Instructional Design/Systems Coordinator, and Instructional Designer: "The development of a computer-based, diagnostic- prescriptive system for evaluation and teaching improvement."

State University of New York at Buffalo Conference on Teaching Evaluation. Buffalo, New York: October, 1987. Presentations by Project Director and Instructional Design/Systems Coordinator: "The Teacher-Course Evaluation Project: a tool for faculty development."

Eighth annual meeting of the Society for Teaching and Learning in Higher Education. Hamilton, Ontario, Canada: June 1988. Presentation by Project Director and Instructional Design/Systems Coordinator: "Reading the ratings. What you don't know about student ratings can hurt you.

First National Conference on the Training and Employment of Teaching Assistants. Syracuse, New York: November, 1988. Presentation by grant-supported graduate assistant: "The 'Handbook for Teachers' and the handbook 'Template'."

Future presentations:

Northeastern University "Scholar Days" invited presentation. Boston, Massachusetts: March, 1989. Presentation by Project Director and Instructional Design/Systems Coordinator: "Using and misusing student ratings data."

Annual Meeting of the American Educational Research Association. San Francisco, California: March, 1989. Presentation/symposium by Project Director and Instructional Design/Systems Coordinator: Two different worlds: research and practice in the use of student ratings of instruction."

Consultants to the FIPSE project:

(note: "*" before name indicates participant in AERA symposium)

Dr Philip Abrami, Concordia University

Dr Lawrence Aleamoni, University of Arizona

Dr Raoul Arreola, University of Tennessee

Dr Dale Brandenberg, University of Illinois

Dr Mary Ann Bunda, Western Michigan University

Dr William Cashin, Kansas State University

* Dr John Centra, Syracuse University

* Dr Peter Cohen, Medical College of Georgia

Dr Patricia Cranton, Brock University

* Dr Kenneth Doyle, University of Minnesota

Dr Glenn Erickson, University of Rhode Island

Dr Stanford Erickson, no institutional affiliation

Dr Kenneth Feldman, State Univ. of New York

Dr Peter Frey, Northwestern University

* Dr Gerald Gillmore, University of Washington

Dr George Geis, Ontario Institute for Studies in Higher Education

Dr John Keller, University of Florida

Dr Christopher Knapper, University of Waterloo

Dr James Kulik, University of Michigan

Dr Larry Ludlow, Boston College

Dr Wilbert McKeachie, University of Michigan

Dr Phil McKnight, University of Kansas

Dr Harry Murray, University of Western Ontario

Dr Robert Menges, Northwestern University

Christopher Schmidt, no institutional affiliation

Dr Thomas Schwen, Indiana University

Dr Peter Seldin, Pace University

Dr Gino Sorcinelli, Indiana University

Dr Mary Deane Sorcinelli, Indiana University

Dr Maryellen Weimer, Pennsylvania State University

Dr Luann Wilkerson, Harvard University

Dr Delivee Wright, University of Nebraska

APPENDIX C

36. The single most important factor determining the grade I expect to receive in this course has been:

A. my ability
B. my effort
C. the instructor's teaching ability
D. how difficult (or easy) the course was
E. the other students in the class
F. mainly luck

37. In my program, this course is:

A. elective in major
B. required in major
C. elective but not in major
D. required but not in major
E. other (e.g., non-credit or audit)

38. My class is:

A. freshman
B. sophomore
C. middler
D. junior
E. senior
F. graduate student

39. My overall gradepoint average is: (first quarter freshmen use high school overall g.p.a.)

A. 1.00 - 1.75
B. 1.76 - 2.25
C. 2.26 - 2.75
D. 2.76 - 3.25
E. 3.26 - 4.00

40. I expect to receive a grade closest to

A. A
B. B
C. C
D. D
E. F or U (fail or unsatisfactory)
F. S (satisfactory, pass)

YOUR WRITTEN COMMENTS ARE ALSO WELCOME!

Use the BACK of the ANSWER SHEET or a sheet of blank paper to write any comments you may have about your instructor, this course, or the TCEP questionnaire.

Thank you for participating in TCEP.

TCEP Questionnaire

Office of Instructional Development and Evaluation (a division of the Center for Instructional Technology)
Copyright 1985, Northeastern University

SECTION I: THE INSTRUCTOR

The following statements describe things effective teachers generally do regardless of the subject area or level of students in the course.

Which of the following options best describes how often each statement is true?

A = almost always
B = more than half of the time
C = about half of the time
D = less than half of the time
E = almost never

OR

F = this item DOES NOT apply to this course

The instructor:

1. communicates the purposes of each class session and learning activity.
2. speaks clearly and audibly when presenting information.
3. presents information at a rate I can follow.
4. indicates which information is essential and which is minor.
5. uses examples and illustrations which help clarify the topic being discussed.
6. shows important relationships among the topics being treated in this course.
7. inspires excitement or interest in the content of this course.
8. relates course material to relevant real life situations when possible.
9. asks questions which challenge me to think.
10. provides opportunities for me to bring up or discuss issues related to the course.
11. develops an atmosphere of respect and trust in the classroom.
12. manages classroom discussions so that they are a useful part of my learning experience.
13. presents activities and materials appropriate for my level of experience and ability.
14. clears up points of confusion for me.
15. provides assistance on individual basis outside of class if I need it.
16. gives me regular feedback about how well I am doing in the course.
17. states in advance precisely how my performance is to be evaluated.
18. gives tests (exams) that are a fair and accurate measure of course skills, concepts, and information as taught.
19. returns exams and assignments quickly enough to benefit me.
20. suggests specific ways I can improve my performance in this course (when needed).
21. makes effective use of class time.
22. is punctual in meeting class and office hour responsibilities.

SECTION II: THE COURSE

Compared to other college courses you have taken:

23. the workload for this course is:

A. one of the lightest
B. lighter than average
C. about average
D. heavier than average
E. one of the heaviest

24. the difficulty level of the course activities and materials is:

A. extremely easy
B. easier than average
C. about average
D. more difficult than average
E. extremely difficult

25. the textbook(s) and readings used in this course are:

A. among the best
B. better than average
C. about average
D. worse than average
E. among the worst

26. Rate how well the syllabus, course outline, or other overviews provided by the instructor helped you to understand the goals and requirements of this course.

A. unusually well
B. better than usual
C. about as well as usual
D. worse than usual
E. not at all or no such information was provided.

27. Rate the usefulness of the outside assignments (writings, reports, and special projects) in helping you to learn.

A. extremely useful
B. more useful than average
C. of average usefulness
D. less useful than average
E. almost useless

28. Rate how well the various elements of the course (e.g., class activities, textbooks/readings, and outside assignments) work together in helping you learn.

A. very well
B. better than average
C. about average
D. worse than average
E. very poorly

29. The course goals or objectives as presented by the instructor were met.

A. strongly agree
B. agree more than disagree
C. agree and disagree, uncertain
D. disagree more than agree
E. strongly disagree
F. no goals or objectives were presented by the instructor

30. Overall, how much do you feel you have learned in this course?

A. an exceptional amount
B. more than usual
C. about as much as usual
D. less than usual
E. almost nothing

31. What is your overall rating of this instructor's teaching effectiveness compared with other college instructors you have had?

A. one of the most effective
B. more effective than average
C. about average
D. less effective than average
E. one of the least effective

32. What is your overall rating of this course?

A. one of the best
B. better than average
C. about average
D. worse than average
E. one of the worst

SECTION III: THE STUDENT

Using the scale below, indicate your agreement or disagreement with the following statements about yourself.

A. strongly agree
B. somewhat agree
C. mixed feelings, (agree and disagree)
D. somewhat disagree
E. strongly disagree
F. no opinion or do not understand the question.

33. My educational background prepared me with the skills and information I need to achieve success in this course.

34. In my own judgment, what I am being asking to learn in this course is important.

35. I picked this course/section based on information about the teaching skill of the instructor.

36. The primary mode of instruction in this class is

A. lecture (by instructor) with examinations and/or papers
B. group discussion with team or collaborative projects
C. laboratory, performance, or other "hands-on" in-class activities
D. clinical, field work, or practicum (off-campus activities)
E. independent student research with individual supervision
F. presentations using invited lecturers, videotapes, films, etc. with discussion, papers, and/or exams.

37. The main method used for evaluating student performance (grading) in this class is assessment based on:

A. tests and/or exams only
B. papers and projects only (no exams)
C. papers and/or projects and exams
D. performances, presentations, or demonstrations
E. non-print projects (e.g. constructions, fabrications, paintings, drawings, photographs, videos, films, etc.)
F. student's participation in class discussions, group projects, or team work.

SECTION IV: Instructional Objectives

Use the scale below to indicate the emphasis you placed in this class on the objectives described below.

A. = very heavy emphasis
B. = moderate emphasis
C. = some emphasis
D. = slight emphasis
E. = no emphasis

Students:

38. gaining factual knowledge (terminology, classifications, methods, trends).
39. learning fundamental principles, concepts, or theories.
40. improving logical thinking, problem-solving, and decision-making.
41. developing specific psychomotor (manipulative, manual) skills.
42. developing skills in organizing ideas and presenting them in written form.
43. opportunities to be creative (imaginative, inventive, original).
44. developing a favorable attitude toward the subject matter
45. developing social skills for leadership, teamwork, and group work

Developed under a grant from the Fund for the Improvement of Post-Secondary Education, (F.I.P.S.E.) by the Office of Instructional Development and Evaluation, 417 Dodge (a division of the Center for Instructional Technology), Northeastern University, Boston, MA 02115

Instructor's Questionnaire

SECTION I: THE INSTRUCTOR

Use the scale below to indicate how often statements 1 through 22 are true about YOU as an instructor for THIS class.

A = almost always
B = more than half of the time
C = about half of the time
D = less than half of the time
E = almost never
F = this item DOES NOT apply to this course

As the instructor, I:

1. communicate the purposes of class sessions and learning activities.
2. speak clearly and audibly when presenting information.
3. present information at a rate students can follow.
4. indicate which information is essential and which is minor.
5. use example and illustrations which help clarify the topic being discussed.
6. show important relationship among the topics being treated in this course.
7. inspire excitement or interest in the content of this course.
8. relate course material to relevant real life situations when possible.
9. ask questions which challenge students to think.
10. provide opportunities for students to bring up or discuss issues related to the course.
11. develop an atmosphere of respect and trust in the classroom.
12. manage classroom discussions so that they are a useful part of students' learning experience.
13. present activities and materials appropriate for students' level of experience and ability.
14. clear up points of confusion for students.
15. provide assistance on individual basis outside of class if students need it.
16. give students regular feedback about how well they are doing in the course.
17. state in advance precisely how student performance is to be evaluated.
18. give tests (exams) that are a fair and accurate measure of course skills, concepts, and information as taught.
19. return exams and assignments quickly enough to benefit students.
20. suggest specific ways students can improve their performance in this course (when needed).
21. make effective use of class time.
22. am punctual in meeting class and office hour responsibilities.

SECTION II: THE COURSE

Compared to other college courses (at a similar level, in a comparable content area):

23. the workload for this course is

A. one of the lightest
B. lighter than average
C. about average
D. heavier than average
E. one of the heaviest

24. the difficulty level of the course activities and materials is

A. extremely easy
B. easier than average
C. about average
D. more difficult than average
E. extremely difficult

25. the textbook(s) and readings used in this course are

A. among the best
B. better than average
C. about average
D. worse than average
E. among the worst

26. Rate how well the syllabus, course outline, or other overviews provided by the instructor helped students to understand the goals and requirements of this course.

A. unusually well
B. better than usual
C. about as well as usual
D. worse than usual
E. not at all or no such information was provided.

27. Rate the usefulness of the outside assignments (writings, reports, and special projects) in helping students to learn

A. extremely useful
B. more useful than average
C. of average usefulness
D. less useful than average
E. almost useless

28. Rate how well the various elements of the course (e.g., class activities, textbooks/readings, and outside assignments) work together in helping students learn.

A. very well
B. better than average
C. about average
D. worse than average
E. very poorly

29. The course goals or objective as you presented them were met.

A. strongly agree
B. agree more than disagree
C. agree and disagree, uncertain
D. disagree more than agree
E. strongly disagree

30. Overall, how much do you feel students learned in this course.

A. an exceptional amount
B. more than usual
C. about as much as usual
D. less than usual
E. almost nothing

31. What is your overall rating of this your teaching effectiveness (in this course/section) compared with other college instructors?

A. one of the most effective
B. more effective than most
C. about average
D. less effective than most
E. one of the least effective

32. What is your overall rating of this course?

A. one of the best
B. better than average
C. about average
D. worse than average
E. one of the worst

SECTION III: OTHER INFORMATION

Please answer the following items:

33. Your rank: (leave blank if not applicable)

A. full professor (including emeritus)
B. associate professor
C. assistant professor
D. instructor
E. lecturer (including adjunct, senior, and part-time)
F. teaching assistant

34. Your years of teaching experience (total at this institution and others)

A. less than one
B. one to two
C. more than two but less than five
D. five or more but less than eight
E. eight or more but less than twelve
F. twelve or more

35. Years of experience, con't:

A. more than twelve but less than twenty
B. twenty or more

APPENDIX D

UNIVERSITY AT BUFFALO
STATE UNIVERSITY OF NEW YORK

Office of Teaching Effectiveness
Ellicott Complex
Buffalo, New York 14261
(716) 636-3364, 3368

Teacher Course Evaluation Project Summary Report

The State University of New York at Buffalo has participated in the Teacher Course Evaluation Project of Northeastern University since the fall of 1987. The Office of Teaching Effectiveness has been the administrative agency working with the principal investigators Jennifer Franklin and Michael Theall.

For three semesters, SUNY/Buffalo has field-tested the IBM/PC version of the student course evaluation program. The first semester entailed linking SUNY\Buffalo to the computer system at Northeastern. The remaining two semesters involved using the pc software on our campus. Faculty participants in the field study originally came from two sources: faculty volunteers throughout the University, faculty teaching Freshmen Seminars, but was expanded to include first-time faculty in Millard Fillmore College (The Evening Division) and faculty in the new World Civilization course. Approximately 300 faculty have participated in the pilot program.

Faculty at SUNY\Buffalo are required to use student evaluations at the end of each semester. A number of different evaluation forms are used, but none of the evaluations offers a formative interpretation of data. Using the student evaluation form in a formative way has been helpful to individual faculty in their teaching. Perhaps, more important it has raised the consciousness of the faculty in general that student evaluation can be a diagnostic tool to improve their teaching.

The spring semester, 1988, required a large block of time to familiarize staff with the software and to initiate the program, including a number of calls to Northeastern University. Once the software was operational, the program ran efficiently and we were able to maintain a very short turn around time for faculty. This semester, using the same version of the software, we have been able to run a greater number of courses and still provide efficient turn around time. We do know from our experience that this program requires specially hired staff and office staff that are able to rearrange their schedules to accommodate the program, including use of computer time.

The investigators at Northeastern have been able to support all facets of our field testing. Consultations by phone have answered all of our program and operational concerns. The bibliographies about specific areas of teaching have enabled us to provide faculty with materials to aid them in making changes in their teaching styles.

In addition to software and material support for the Teacher Course Evaluation Program, SUNY\Buffalo has utilized the compiled teaching assistant handbook. With the basic format provided through the project we were able to customize the materials to apply to our university. The Teaching Assistants Handbook has been published and over 2000 copies distributed to teaching assistants and faculty who supervise these persons. Our Office continues to get requests for this handbook and has received positive feedback from persons familiar with the publication.

Being affiliated with the Northeastern University project, Teacher Course Evaluation Program has provided services to faculty that our rather new operation would not have been able to provide. The evaluation service we have offered to faculty has raised the consciousness of the faculty to the value of student evaluations in improving teaching performance. The support of materials designed as part of the PHIPSE program has enabled our operation to be more effective in our mission of being a resource to faculty on current issues in teaching effectiveness.

APPENDIX E

Please note: only one copy of Appendix E "Handbook for Teachers" is available at this time.

TEACHING HANDBOOK TEMPLATE

Developed under a grant to Northeastern University from the Fund for the Improvement of PostSecondary Education, the TEMPLATE is a system for constructing general purpose handbooks on teaching topics suitable for teaching assistants, associate instructors and new faculty.

The TEMPLATE consists of text which any institution may have modified by the original TEMPLATE development team in order create its own unique handbook. The template's core text draws on exemplary handbooks from around the country, important literature on post-secondary teaching techniques, and new materials written by the development team. The TEMPLATE covers a wide range of topics of particular concern to graduate students in teaching roles. New faculty find many of the topics to be a useful introduction to their teaching duties. (A sample table of contents is appended to this sheet).

The TEMPLATE can be economically adapted by its developers to a wide range of postsecondary settings through the medium of desktop publishing. This allows users to have the advantage of already developed and comprehensive information on essential teaching topics without sacrificing the special local contributions from within the institution. For institutions with limited resources the TEMPLATE offers a unique possibility for creating an instructionally sound handbook without drawing heavily on scarce faculty service time or limited financial resources. Moreover, the final handbook product has a clean, typeset appearance. The quality of the handbook helps convey the message that teaching is taken seriously..

The goal of Northeastern University is to disseminate TEMPLATE-based handbooks on a non-profit basis. However, Northeastern University does not distribute copies of the TEMPLATE itself. Instead, the core text of the TEMPLATE is customized by the original TEMPLATE development staff to meet each adopting institution's local needs. For example, the name of the institution; locally written articles; lists of local resources; names of institutional sponsors, administrators, and local participants in the handbook development process; and terms unique to the institution (e.g. "associate instructor" for "teaching assistant") can be incorpated into the core text. Graphics supplied by users (photographs and line drawings) can also be incorporated into the final product.

Users provide the TEMPLATE developers with any additional text to be inserted, lists of deletions, and necessary information about the modifications. Modifications are made by the developers and a draft version is sent to the users for approval. Final revisions are made and are followed by a final "camera ready" version (with cover art if requested). Each user institution generally makes its own local arrangements for printing. The developers can make these arrangements if requested to do so.

Rights to use handbooks constructed from the TEMPLATE are free of cost. Users pay only the actual cost of the customization and printing. This cost is mainly determined by the number and scope of the modifications. Any institution receving its own handbook created from the TEMPLATE is free to reproduce or further modify the handbook for use within that institution for as long as needed. Text files of the contents of handbooks developed from the TEMPLATE are available on 5 1/4 floppy disks for archiving by the adopting institution.

Although the TEMPLATE has only recently become available, users of handbooks developed from the TEMPLATE already include Indiana University, State University of New York, Buffalo, and Northeastern University. For more information about the TEMPLATE development process, specific terms, and limitations for use contact:

Jennifer Franklin
Office of Instructional Development and Evaluation, 417 Dodge
Northeastern University
360 Huntington Avenue
Boston, MA 02115
(617) 437-4896

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APPENDIX F

TCEP RESOURCE BIBLIOGRAPHY

Teaching skills: handbooks

Armstrong, D. G., Denton, J. J., & Savage, T. V., Jr. (1978). *Instructional skills handbook.* 302 pgs. Educational Technology Publications, Inc. Englewood Cliffs, NJ.

Provides a 5-component systematic approach to instruction, including specifying performance objectives, diagnosing learners, selecting instructional strategies, interacting with learners, and evaluating instruction.

Christensen, C. R., & Hansen, A. J. (1987). *Teaching and the case method: Text, cases, and readings.* 290 pgs. Harvard Business School Boston.

A book of cases and readings on teaching with cases, establishing instructor-student learning contracts, gaining student respect, leading and controlling classes, retaining authority, leading discussions, etc.

Eble, K. E. (1979). *The craft of teaching: A guide to mastering the professor's art.* 179 pgs. Jossey-Bass Publishers San Francisco The Jossey-Bass Series in Higher Education.

Within the framework of a humanistic approach to teaching, Eble provides specific advice and realistic suggestions for improving teaching skills, including teaching methods, setting classroom atmosphere, handling difficult classroom situations.

Ericksen, S. C. (1985). *The essence of good teaching: Helping students learn and remember what they learn.* 180 pgs. Jossey-Bass Publishers San Francisco. The Jossey-Bass Higher Education Series.

Examines research on learning, thinking, memory, and motivation to provide insight into how instructors can improve teaching methods to enhance student motivation, comprehension, retention, and independent thinking.

Fuhrmann, B. S., & Grasha, A. F. (1983). *A practical handbook for college teachers.* 315 pgs. Little, Brown & Company, Boston.

Discusses skills and ideas necessary for successful teaching, including personal values and belief systems, learning and teaching styles, group dynamics, interpersonal communication, teaching methods, evaluating students, assessing teaching skills.

Gullette, M. M. (Ed.) (1984). *The art and craft of teaching.* 130 pgs. Harvard University Press, Cambridge, MA.

A series of essays on college instruction, including the first day of class, lectures, questioning techniques, leading discussion sections, teaching essay-writing, grading and evaluation. (See separate listings for individual essays.)

Hyman, R.T. (1974). *Ways of teaching.* 371 pp. J.B. Lippencott Co. New York.

A five-part methods book, well documented, with many examples (e.g. dialogue from questions). The five parts include: overview, discussion method, recitation and lecture, role playing, and question-observing-evaluating.

Lowman, J. (1984). *Mastering the techniques of teaching.* 245 pgs. Jossey-Bass Publishers. San Francisco. The Jossey-Bass Higher Education Series.

Examines what constitutes good teaching and shows how to master effective teaching techniques, including analyzing and improving classroom performance, selecting and organizing class material, planning course content, evaluating student performance.

McKeachie, W. J. (1978). *Teaching tips: A guidebook for the beginning college teacher.* 338 pgs. D. C. Heath and Company Lexington, MA.

A classic introduction to college teaching - provides tips on all aspects of teaching, from course preparation and the first day of class, to selecting appropriate teaching methods and materials, grading and evaluation, and morale, discipline, and order.

Milton, O., & Associates (Eds.) (1978). *On college teaching: A guide to contemporary practices.* 404 pgs. Jossey-Bass Publishers San Francisco. The Jossey-Bass Series in Social and Behavioral Science and the Jossey-Bass Series in Higher Education.

A collection of essays (see individual authors for entries) regarding teaching and learning issues, including lecturing, leading discussions, writing objectives, using computers, using individualized instruction, developing field experience programs.

Renner, P. F. (1983). *The instructor's survival kit: A handbook for teachers of adults,* Second edition. 136 pgs. PFR Training Associates, Ltd. Vancouver, BC.

A how-to book on teaching adults--the first part presents techniques such as setting the scene, getting acquainted, involving learners in planning and learning, using audio-visual aids; the second part helps develop interpersonal and planning skills. Recommended for teaching assistants and new faculty.

Teaching skills: the lecture method

Bentley, D. A. (1981). More ammunition for the note-taking feud: The "spaced lecture." ***Improving College and University Teaching.*** **29(2). pp. 85-87.**

Describes a study the author undertook to determine if the spaced lecture was more advantageous for notetaking than the traditional lecture; found no significant differences.

Bergman, D. (1983, Winter). In defense of lecturing. ***ADE Bulletin.*** **76. pp. 49-51.**

Provides a defense of why lecturing is a viable means of teaching.

Carrier, C. A. (1983). Notetaking research: Implications for the classroom. ***Journal of Instructional Development.*** **6(3). pp. 19-26.**

Presents findings from notetaking literature; states conclusions reached, summarizes research supporting it, and implications for college instruction. Also presents suggestions on how lecturer behavior can positively affect notetaking practices.

Cashin, W. E. (1985, September). Improving lectures. ***Idea Paper No. 14.*** **4 pgs. Center for Faculty Evaluation & Development, Kansas State U. Manhattan, KS.**

Presents strengths and weaknesses of using the lecture method in teaching; provides a set of recommendations for lecturing effectively, including preparation and organization, presentation and clarity, stimulation and interest, feedback and interaction.

Dubrow, H., & Wilkinson, J. (1984). The theory and practice of lectures. In M. M. Gullette (Ed.) ***The art and craft of teaching.*** **(pp. 25-37). Harvard University Press, MA.**

Presents suggestions on how to improve lecturing skills.

Fisher, B. F., & Jablonski, C. (1985, February). Questions in the lecture. ***Teaching and Learning at Indiana University.*** **pp. 3-4. University Office for Learning Resources, Indiana University, Bloomington, IN.**

Discusses the three types of questions regularly heard in lectures--rhetorical, transitional, and discussion questions--and provides suggestions on how to use them to their best advantage.

Frederick, P. J. (1986, Spring). The lively lecture--8 variations. *College Teaching.* 34(2). pp. 43-50.

Discusses criticisms and justifications of the lecture method. Presents 8 ways of livening lectures; which to use depends on the goals for a particular class period, the skills/needs of the students, and professor's personal style.

Gardner, L. S. (1987). Teaching the huddled masses. *Network Newsletter on College Teaching.* 5(5). pp. 1-3. The Center for Teaching Excellence, Texas A & M University. College Station, TX

Discusses the use of lectures in large classes, and presents Frederick's 8 variations of the traditional lecture approach.

Kemp, J. E., & McBeath, R. J. (1979, July). *Preparing lectures* (text and workbook). 53 pgs. Faculty and Instructional Development Office, San Jose State San Jose, CA.

Self-instructional module on preparing lectures; topics include selecting and organizing content, choosing examples and resources, selecting presentation method, creating conditions for effective learning, and evaluating lecture effectiveness.

McKeachie, W. J. (1980). Improving lectures by understanding students' information processing. In W. J. McKeachie (Ed.) *Learning, cognition, and college teaching.* (pp. 25-36). Jossey-Bass Publishers San Francisco New Directions for Teaching and Learning, No. 2.

Discusses lectures from the point of view of 'what are students trying to do during a lecture?' Discusses how students process the information presented in lectures, and how lectures can be improved to enhance student learning.

Milton, O., & Associates (Eds.) (1978). *On college teaching: A guide to contemporary practices.* 404 pgs. Jossey-Bass Publishers, San Francisco. The Jossey-Bass Series in Social and Behavioral Science and the Jossey-Bass Series in Higher Education.

A collection of essays (see individual authors for entries) regarding teaching and learning issues, including lecturing, leading discussions, writing objectives, using computers, using individualized instruction, developing field experience programs.

Napell, S. M. (1977, April). Updating the lecture. *California Journal of Teacher Education.* 4(1).

Explores three common misconceptions regarding lecturing, and suggests modifications which can help to create between teacher and students a sense of the shared adventure of learning.

Napell, S. M. (1979). *The lecture. A Teaching Awareness Manual.* Piedmont, CA. pgs

Presents suggestions for presenting good lectures.

Osterman, D., Christensen, M., & Coffey, B. (1985, January). The feedback lecture. *Idea Paper No. 13.* 4 pgs. Center for Faculty Evaluation & Development, Kansas State U. Manhattan, KS

Presents the idea of feedback lectures, which overcome many problems inherent with lecturing. Outlines components of feedback lectures, gives a detailed example, and describes experiences of two college instructors using feedback lectures.

Sweeney, J. J., & Reigeluth, C. M. (1984, August). The lecture and instructional design: A contradiction in terms? *Educational Technology. 24*(8) pp. 7-12.

Presents advantages and disadvantages of lecturing, and discusses when the lecture method is most effective. Provides a general model of a lecture as well as variations (e.g., interactive lectures, demonstrations, and interactive demonstrations).

Thiagarajan, S. (1978, October). Games for unlecturing. *Educational Technology 18*(10) pp. 44-45.

Discusses unlecturing games, which attempt to retain the strengths of the lecture format while replacing its passive nature. Gives rationale for unlecturing games, and presents instructions on how to play the Press-Conference Game.

Weaver, R. L., II. (1982). Effective lecturing techniques: Alternatives to classroom boredom. *New Directions in Teaching.* 7, Winter. 31-39.

On Maryellen Gleason's list of 10 best articles on teaching; discusses the 'AIDA' formula for effective lecturing - A (attention), I (interest), D (desire), and A (action).

TCEP RESOURCE BIBLIOGRAPHY

Teaching skills: feedback, questioning, testing, and grading

Feedback:

Carlson, C. R. (1978). Feedback for learning. pp. 125-152. O. Milton & Associates (Eds.) *On college teaching: A guide to contemporary practices*. Jossey-Bass Publishers, San Francisco. The Jossey-Bass Series in Social and Behavioral Science and The Jossey-Bass Series in Higher Education.

Provides a rationale for why regular feedback to and from students is important to teaching and learning; includes suggestions for establishing the proper conditions for feedback, and descriptions of several different types of feedback.

Geis, G. L., Rogers, J., Notar, A., & Pascal, C. E. (1977). *Module 4: Characteristics of effective instruction*. 118 pgs. The Centre for Learning and Development, McGill University Montreal, Quebec. From the series: Teaching and Learning: An Individualized Course for Instructors in Higher Education.

Presents 10 characteristics of effective instruction: tests prerequisite skills, gets feedback, adapts to individual differences, is flexible, allows active student learning, gives feedback, motivates students, cumulative review, testing, previews topics.

Questioning:

Fisher, B. F., & Jablonski, C. (1985, February). Questions in the lecture. *Teaching and Learning at Indiana University*. pp. 3-4. University Office for Learning Resources, Indiana University Bloomington, IN.

Discusses the three types of questions regularly heard in lectures--rhetorical, transitional, and discussion questions--and provides suggestions on how to use them to their best advantage.

Hyman, R.T. (1974). *Ways of teaching*. 371 pgs. J.B. Lippencott Co. New York.

A five-part methods book, well documented, with many examples including dialogue from questions. The parts include: overview; discussion method; recitation and lecture; role playing; and questioning-answering-evaluating.

Napell, S. M. (1978, Winter). Using questions to enhance classroom learning. *Education*. 99(2).

Discusses how questions can subvert or enhance teaching goals; classifies and analyzes classroom questions, discusses components of effective questioning strategies, and offers methods for using questions to stimulate thinking and enhance learning.

Sanders, N. M. (1966). *Classroom questions: What kinds?* 176 pgs. Harper & Row, New York.

Presents a taxonomy of questions (memory, translation, interpretation, application, analysis, synthesis, evaluation) to correspond with Bloom's taxonomy of learning outcomes; discusses each type of question and how to use questions effectively.

Testing and Grading:

Cashin, W. E. (1987, January). Improving essay tests. *Idea Paper No. 17*. 4 pgs. Center for Faculty Evaluation & Development, Kansas State U. Manhattan, KS.

Discusses strengths and weaknesses of essay tests; provides recommendations on when essay questions should be used, constructing essay tests, and scoring essay tests.

Frisbie, D. A., Diamond, N. A., & Ory, J. C. (1983). *Assigning course grades*. 30 pgs. Office of Instructional Resources, University of Illinois, Urbana-Champaign, IL. The Assessment and Improvement of Instruction.

Meant as a reference for instructors wishing to establish grading policies and practices, or to review and revise current practices. Provides guidelines on assigning grades, grading multi-sectioned courses, evaluating grading policies.

Jedrey, C. M. (1984). Grading and evaluation. pp. 103-115. M. M. Gullette (Ed.) *The art and craft of teaching*. Harvard University Press. Cambridge, MA.

Discusses the importance of considering how and why students are being graded; discusses issues to be considered when deciding how to evaluate student performance.

MacDonald, J. (1986, September). But, how do you know it's a good test ? Part II: Essays. EKU *Teaching*. 3(1). pgs. 3-4. Eastern Kentucky University, Richmond, KY.

Essay questions test writing and organizational skills, and creative application of material learned; however, they are difficult to score reliably. Article gives hints on writing good essay questions, and how to achieve usable, reasonably valid scores.

APPENDIX G

Please note: only one copy of Appendix G "Effective Use of Time in the College Classroom" is available at this time.

APPENDIX X 'SPECIAL COMMENTS FOR FIPSE'

Special comments for FIPSE

Question #1. What forms of assistance were helpful? How can the Fund more effectively work with projects?

In this project, FIPSE staff were very helpful in suggesting ways in which I could overcome obstacles to achieving project goals. These obstacles were most often related to institutional constraints or unforseen practical limitations on the extent to which anticipated university support could be delivered. Essentially, my questions to FIPSE focused on how to take such problems into account and how to alter the course of the project without significantly or drastically altering its goals. FIPSE staff explained the Fund's position on changes and how I could incorporate such changes into reapplications and other documents. These conversations and explanations relieved a good deal of anxiety felt by project staff. Eventually, with the help and guidance of FIPSE staff, we were able to achieve the major objectives of the project.

When this grant began, I was unaware of the FIPSE Technology Study Group. My first FIPSE contact made me aware of FTSG and I became a member. This was a profitable and interesting side benefit of being a project director and I might not have been aware of it if my FIPSE contact had not involved me immediately.

I attended one director's meeting, was unable to attend one, and through some embarrassing misreading of my travel schedule missed the third. I found the one meeting I did attend to be useful in several ways. As a new project director, I was helped considerably by the orientation/information meetings designed to help folks like myself get started. I also enjoyed and profited from meeting other project directors and sharing information with them. The general presentations were interesting and the following dialogues equally valuable.

Beyond these kinds of interactions, I didn't seek much assistance from, or interaction with FIPSE. This was due to limited time and the fact that our concentration was on achieving those goals we had set (and reset) as time progressed. With more time, I might have been more in touch and had a better opportunity to become more involved with FIPSE or with other projects.

What can FIPSE do? This is difficult to answer because I think each project has its own direction and needs. It's possible that the agendas of the Fund and its staff might match the goals of one project very well and be less attuned to the needs of another project. In this sense, I think that more regular, FIPSE initiated contact with project directors might be useful. I had opportunity to interact at length only with my first contact. But, at the time, FIPSE was better funded and had more staff. I realize the limitations of the present are similar to those I have faced here and

thus, can not make the case that I should have had more chances to interact at length with my other contacts.

Question #2. What should the Fund consider for future grants in my area of interest.

My personal experience has been borne out by the rather broad scale research we have carried out ... and the conclusions I have reached are somewhat pessimistic. I believe that the critical element for any valid instructional or faculty evaluation/ development program is the extent to which it is supported. This support must come from two quarters: administration and faculty. Let me elaborate.

As the report noted, faculty must trust, believe in, and accept any program offering evaluation/development services or products. But in the area of evaluation, faculty have a habit of disregarding research they don't like. Though there are many valid reasons that faculty could be suspicious of imposed evaluation programs, their arguments against any kind of evaluation are surprisingly uninformed. They prefer to accept anecdotal evidence to research: "I know a guy who gave all 'A's and increased all his ratings". They exhibit the kind of scholarship for which they would fail their students: "I don't care about the research. I just know!" And they cling to ideas that have no basis in the research: "Tough teachers always get low ratings." They often believe that anyone who is not a faculty member is not credible and has nothing of value to say: "...really rotten teachers ... should be forced to shape up or leave. But that is a job for strong deans and chairmen, not student "evaluators" and educationists like yourself." (A real quote from a Northeastern faculty member in response to the evaluation survey distributed at NU .. thank goodness this person is one of a very small, but usually present and very vocal minority)

The conclusion is that some evidence of faculty acceptance and support for the project should be present. Though I do not feel that a faculty senate or similar body should have veto authority over the research or grant activities of non-faculty staff or units, it seems to me that apriori faculty commitment to the proposal and to support of its intended services (for, after all, FIPSE grants in this area are usually intended to design, develop, or initiate services) will help to insure the continuity of these services. If faculty are not directly involved in the writing the proposal or carrying out the project, then some measure of their confidence is important in considering the proposal's value.

The other unfortunate aspect of the situation is that institutions (and/or their leaders) are quite willing to reduce or remove support for development programs when resources are tight. While there is no money to pay for evaluation or development staff, for example, several hundred-thousand dollars are spent on landscaping and purely decorative projects. Our athletic coffers are amply supplied

with travel funds, but there is no budget for books or journals focusing on teaching/learning/evaluation issues.

These observations lead me to suggest that in development and/or evaluation grants, FIPSE should insist on more clearly defined institutional contributions and commitments when grants are given, and should check to be sure that these commitments are honored during the grant. In the case of this grant, for example, if we had clearly defined our intent to use certain spaces to house a faculty teaching resource center, had received approval to submit the grant, and FIPSE had specified in its documents that the Fund would support certain activities for certain purposes with certain institutional commitments, then the spaces in question might not have been lost (as indeed they were) when internal administrative changes were made. Another important aspect of this issue is the need for continued institutional support after the grant. In our case, the existing office and its staff would have remained anyway, but beyond this, there would have been committed staff, space, and resources to enlarge, or at the very least, continue to refine and improve the products and/or services which the grant had allowed us to develop. As a side note, although a FIPSE dissemination grant would have been most useful for us, I decided not to apply because I was unsure of the immediate or long term future at Northeastern. Our administration was changing and there was no way to assess future levels of support. This coupled with the public debate about evaluation described in the report, led me to the conclusion that it would be unwise to apply. As the situation has stabilized, I now wish I had applied. The grant would have allowed us to get the system and its components out into the public view more quickly and efficiently.

I do not mean these comments to suggest that our grant commitment was denied, that we did not accomplish our basic goals, or that this office and its functions will be reduced or eliminated. This would be both incorrect and foolish. Rather, my point is that had we been forced to be more specific about goals and commitments, then the institution would have had to make more specific apriori decisions. If Northeastern had said "Yes, we want this space to become a teaching resource center for faculty" then we could have moved in that direction. If Northeastern had said "No, we can not presently commit this space for this use nor can we promise that it will be available at the end of the grant period" then our proposal could have been altered. The end result would have been a more realistic proposal and a better match of promise and accomplishment.

This does not necessarily mean that only those institutions with existing programs, substantial endowments, or long 'track records' should be funded because they can make such commitments. In many cases, it is the smaller institution which truly needs the assistance in starting such programs. The emphasis should be on follow-through. Yet even this approach has its drawbacks because smaller institutions or those programs dealing with non-traditional learners might be best served by adapting and adopting rather than by 're-inventing wheels'. In the case of evaluation/development grants, this implies a clear review of these alternatives

before funding, so that needs can be clearly identified. It also implies that the institution has on staff, people qualified to perform both the apriori and committed tasks. Generally, this means instructional design/evaluation staff.

How can this be accomplished? I have two suggestions. First, it might be reasonable to provide exploratory grants of 6 month to 1 year duration and to tighten the re-application process so that the above factors can be weighed. Second, provision of funds in this area might include the requirement that some of the grant money be spent of expert consultation in evaluation/development during the exploratory period. The list of consultants in the report (with my name and Jennifer Franklin's added) might be a starting place to which FIPSE could direct its applicants. Our experience at the field test site at SUNY Buffalo (where we were brought in as consultants to talk to the faculty senate and to administrators) showed the value of this approach. We believe that having outsiders involved reduces the concern that the institution is preparing for a mandatory process or 'trying to sneak something under the table'. At SUNY, the decision about going ahead with the field test of the TCEP system was not made until these representative groups expressed approval.

Summary comments

The grant experience has been profitable and I believe that we have made, and will be able to continue to make contributions to both the research and practice in the field. I also believe that we will be able to disseminate the system and its products though this may not happen in the immediate future. Given our experiences at Northeastern over the past three years, it is safe to say that without the FIPSE grant, we would have been unable to develop the system or its components.